

Notice of Allowability

Application No.

09/936,794

Examiner

William P. Fletcher III

Applicant(s)

DAVIES ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed 06/05/2006.
2. ☒ The allowed claim(s) is/are 2 and 4-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 6/5/06 & 6/6/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 06/05/2006 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/05/2006 was filed with the above-mentioned RCE. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. The information disclosure statement (IDS) submitted on 06/06/2006 was filed within three months of the filing of the above-mentioned RCE. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

4. Claims 2 and 4-21 are allowed.

5. The following is an examiner's statement of reasons for allowance:

A. The reasons for allowance set-forth in prior actions are incorporated herein.

B. The above-mentioned Information Disclosure Statements cite two documents particularly relevant to the claimed invention.

i. McMahon et al. (US 3,130,061 A) teaches the treatment of a metal substrate with a coating composition comprising colloidal silica (SiO_2) binder and lithium hydroxide (M_2O) in a molar ratio of about 40:1 to 2.5:1 [1:19-23]. This reference fails to teach post-treating of the composition with a film strengthening solution, aqueous solution of an inorganic salt, or a silicate or alkoxysilane solution. Sano remains the closest prior art, including this post-treatment. As noted in the Notice of Allowability mailed 11/15/2005, the invention of Sano rests in mechanical and thermal properties realized by coating with a composition having a particular viscoelastic property [1:34-51 and 45-47]. This coating composition has a molar ratio of 0.5-15 (4:45-60), which is outside applicant's claimed range, and is accompanied by a teaching that changing the molar ratio will change the viscosity of the coating composition [4:51-55]. Consequently, it is clear that Sano's molar ratio is critical to the invention, and that it would have been obvious neither to optimize this value nor substitute the composition of McMahon so as to give the claimed molar ratio of at least 25:1. Further, McMahon teaches away from post-treatment of the coating [4:4:58-64]. Consequently, the instant claims are patentable over McMahon.

ii. Ito et al. (JP 51-73029 A) teaches an inorganic film-forming composition having a molar ratio $\text{SiO}_2:\text{M}_2\text{O}$ of 50:1 to 3:1. This reference too fails to teach post-treating. As noted above, the molar ratio of Sano is critical and it would have been obvious neither to optimize this value nor substitute the composition of Ito so as to give the claimed molar ratio of at least 25:1. Consequently, the instant claims are patentable over Ito.

C. An updated search of the prior art revealed Kushida et al. (US 5,091,224 A) which teaches both primer coating and post-treating. Here, the molar ratio $\text{SiO}_2:\text{M}_2\text{O}$ is 1.7:0.3

Art Unit: 1762

to 5.0:1.0, and the reference teaches away from higher concentrations [2:35-68]. Consequently, the instant claims are patentable over Kushida as well.

D. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Tuesday through Saturday, 0700h to 1730h.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William Phillip Fletcher III

06/09/2006

Application/Control Number: 09/936,794

Page 5

Art Unit: 1762

Patent Examiner (FSA), USPTO
Art Unit 1762

Alexandria, VA